on or near the surface of the pround an oval, brittle cell of sand and earth in which it transforms to a pupa within a few hours.

The moderately stout pupa is of a light chestnut brown; head, thorax, wing and limb cases darker brown, finely rugose; movable segments finely punctured anteriorly with darker brown edge near sutures, spiracles also darker brown. The pupa ends in two spines about 0.7 mm. in length and is not fastened to the cocoon. Thorax slightly compressed sideways. Length of earth-cell 15–17 mm., width in the middle 10 mm. Length of pupa 12–13 mm., width of 3d abdominal segment, where the pupa is widest, 4.0–4.5 mm.

First imagines of these broods appeared July 6th, the majority from July 9th to July 12th.

The plain color and design of *Platysenta videns* precludes marked variation. The large material obtained by breeding shows fairly the range of variation. The moths from wintering pupæ expand 27–32.5 mm.; those of the early summer brood 25–33 mm. The summer form is throughout of a decidedly darker ground color of primaries than the preceding one, even the fringe being often uniformly blackish. The secondaries, which in the fall brood are in some cases even plain whitish, show a tendency to form a more or less broad, sooty, marginal band, sometimes shading beyond the middle. This tendency to melanism in one brood is caused apparently by the favorable temperature and the excellent physiological condition of the food-plant, which combined produce more vigorous individuals than in the brood growing up in the fall, exposed to a waning food-plant and frequently to the vicissitudes of the weather.

DESCRIPTIONS OF SOME PYRALID LARVÆ FROM SOUTHERN FLORIDA.

By HARRISON G. DYAR.

Margaronia bivitralis *Guen.**

Larva. Head rounded, whitish green, ocelli black. Body slender, uniform, segments 2-annulate, setæ moderate. Transparent, the blood green, food dark green.

* I learn from Prof. C. H. Fernald that the synonymy as given in the Smith list and by Hampson is erroneous and that this species should be called *Glyphodes sibillalis* Walk. = *batesi* Feld = *alitalis* Hulst (nec. *bivitralis* Guen.).

Tubercles large colorless, obscure, normal; iv and v united. A black dot before tubercle iib on joint 3, sometimes a smaller one on joint 4 and one behind tubercle iii on joint 12. Head with faint red reticulations; width 1.7 mm.

Food-plant: Mulberry (*Morus rubra*), solitary in a web on the back of a leaf folding over parts of the leaf.

Margaronia infimalis *Guen.*

Larva. Head pale green, clypeus high. Body rather short and thick, cylindrical, tapering at the ends. Leaf green with a subdorsal white line; spiracles small, whitish; setæ short.

Food-plant: Melothria grendula, solitary, webbing up a leaf.

Sylepta gordialis *Guen.*

Larva. Head rounded, full, the antennæ long, whitish, reticulate with faint brown dots in patches each side of the suture, over the lobes centrally and behind the eyes; ocelli black, mouth brown; width 1.6 mm. Body a little flat, the cervical shield invisible, not colored except for a blackish pulverulent line at the edge. Body shining, pale green, translucent, food showing dark green. Tubercles colorless, a black half ring below ii on joint 3 and a fainter one below iii on joint 12. No marks, tracheal line white. Anal plate invisible. Setæ short, white. Tubercles iv and v united; on thorax i, ii and iv + v with black dots, on joint 4 iib only so marked; tubercle iii the whole length sometimes with a small dot and one also at ii on 12.

Food-plant: Pisonia aculeata; also on the cultivated *Bougainvillia*, to which it is often rather injurious, webbing up the leaves and partly defoliating the plants.

Sylepta anormalis *Guen.*

Larva. Head green with brown jaws and black ocelli; width about 2 mm. Body rather thick, the segments irregularly 2-annulate, well incised; not very translucent, shining uniform green, tracheæ faintly white; spiracles a little yellowish; a black dot on joint 3 anteriorly laterally. Tubercles transparent, concolorous, iv and v united, vii of three setæ. Legs slender, bulbous at tip, the row of crochets broken on the outside. Sometimes the apices of head lobes a little reddish.

Food-plant: Morning glory (*Ipomoea* spp.), at first a leaf-stitcher, later curving the leaf from the top side and spinning a tent over the surface.

Dichogama amabilis *Möschl.*

Larva. Head rounded, broad, the apex under joint 2; clypeus high, the paraclypeal pieces reaching vertex; antennæ rather long; whitish with large angular olivaceous blotchy mottlings and tiny black dots, the tubercles black ringed; sutures of clypeus black; two upper ocelli with large black central pigment spots; setæ long, fine white; width 3.4 mm. Body thick, a little flattened, narrowing somewhat pos-

teriorly; cervical shield large, weak, translucent whitish, more translucent centrally and anteriorly, the whitish parts black dotted and a marginal black line. Body whitish, the food giving a green tint. A double yellow dorsal line enclosing the greenish dorsal vessel; a single substigmatal line on joints 3 to 13 anteriorly, wavy edged and a little broken; sides a little whitened, with a broken white lateral line above tubercle iii, obscurely dusky edged above. Tubercles i to iii white, hair tubercles black with a distant white ring, absent on iii which therefore looks smaller; iv + v obscurely white ringed and vi also on the apodal segments. Anal flap greenish marbled with white. Spiracles light red, that of joint 5 lower than the rest. feet short, pale.

Food-plant: Capparis jamaicensis; living between leaves firmly spun together.

Dichogama bergii *Möschl.*

Larva. Head round, apex below joint two, clypeus high, reaching cervical shield in the ordinary position of retraction, whitish with scattered patches of dark brown; width 1.7 mm. Body pale red, scarcely marked; cervical shield transparent, faintly spotted; subdorsal (above i), lateral (between ii and iii) and stigmatal lines distinct, whitish, reaching joints 3 to 13; dorsal vessel reddish; spaces between dorsal and lateral lines and between lateral and stigmatal filled in with black; brownish mottlings on subventral fold, subventer colorless. Body a little flattened; setæ long and pale.

Food-plant: Capparis cynophallophora; living among leaves firmly spun together.

Epicorsia mellinalis *Hübn.*

Larva. Head orange, antennæ whitish, jaws, eyes and ends of antennæ black; setæ rather long, pale. Body tapering somewhat posteriorly; semitransparent shining dull greenish, subdorsal and stigmatal lines yellow orange. Cervical shield nearly white with many irregular black spots. Tubercles black, edged with white, white centrally but the hair tubercle again black; a single dorsal spot in front of the anal plate which is colored like the cervical shield. Thoracic feet black.

Food-plant: Citharexylum villosum; curling a leaf and spinning a web over the top.

Terastia meticulosalis *Guen.*

Larva. Head rounded, paraclypeal pieces reaching vertex; blackish brown, sutures and sides black, labrum pale; width 1.9 mm. Cervical shield moderate, brown, bisected; anal plate large, pale brown. Body large, robust, pale luteous, faintly coarsely mottled with reddish leaving obscure broken pale addorsal, subdorsal, stigmatal and traces of subventral lines; dorsal vessel darker. Skin not shining; minutely granular; segments 2-annulate. Tubercles large, luteous; il arger than ii, iii large, iiia before and above spiracle, iv and v united, one above the other. Spiracle of joint 12 more dorsally placed than the others.

Food-plant: Erythrina herbacea. The larva is an internal feeder,

boring in the younger stems which it completely hollows out, killing them. When the plant is in early flower, the young flower heads are often killed and webbed up into a foul mass by this larva. Spins a large webby cocoon on the ground.

Agathodes designalis *Guen.*

Larva. Head round, clypeus high; brownish orange, bases of antennæ and epistoma white, ocelli and ends of antennæ black; width 1.7 mm. Body normal, tubercles ia + ib, iia + iib and iv + v on thorax, iv + v on abdomen, as in all the Pyralids here described. Sordid greenish dorsally, more ocherous laterally; tubercles large, jet black, polished. A pale yellow subdorsal line on joints 3 to 12 broken in the incisures. Cervical shield transparent, densely black spotted; anal flap sparsely spotted. Thoracic feet black, abdominal ones with hair tubercles of vii only black.

Food-plant: Erythrina herbacea, making a web among the flowers. Bores a hole in soft wood to pupate.

Desmia tages *Cram.*

Larva. Head rather long, shining yellowish luteous, shading to bright red brown on the apices of the lobes; paraclypeal pieces reaching vertex but narrow and obscure; clypeus moderate; four upper ocelli large and black, almost contiguous; width 1.5 mm. Body transparent, black from the food showing; cervical shield nearly black, bisected by a pale line. Tubercles large, sordid blackish at the extremities, colorless centrally. Tracheæ and excretory tubules white; spiracles rimmed with pale testaceous; setæ long, pale. Tubercles iv and v united, nearly in line, iv a trace dorsad.

Food-plant: Psychotria undata. The larva is a leaf roller, rolling up the leaf in spiral to several turns, fastened with stitches on the outside in the manner of a Tortricid. When large, several leaves are involved.

Lineodes integra *Zell.*

Larva. Head with vertex under joint 2, clypeus moderate; translucent greenish tinged with brown, shining; width 1.2 mm. Cervical shield transparent with a black fleck on either side before the edge. Body somewhat robust and hunched up, rounded a little at the ends, not tapering; segments scarcely annulate. Translucent whitish green, dorsal vessel blackish green. Tubercles rather large, elevated but quite transparent; iv + v. Spiracles all colorless; feet colorless, the tips of thoracic ones dark. Setæ short.

Food-plant: Solanum radula, also on the cultivated *S. jasminifolium*, to which it was more injurious than to the wild plant. Webs the leaves, biting them off and resting in the withered foliage.

Lineodes triangulalis *Möschl.*

Larva. Head with the vertex slightly under joint 2, clypeus high; green, red-

dish reticulate over the apices and the lobes, mouth brown; ocelli, a spot behind and the posterior rim of the lobes black; width 1.1 mm. Body shaped as in *L. integra* and colored much the same, but the tubercles, and especially iii, are shaded with black, and the excretory tubules show very distinctly white as long finely waved lines in a recurved loop reaching forward from joint 10 to 8 on each side. Tubercles slightly elevated, iv + v. Segments shining, obscurely 2-annulate.

Food-plant: Capsicum frutescens; the habits as in *L. integra*.

Thyridopyralis, gen. nov.

Median nervure non-pectinate, proboscis absent, veins 7 and 8 of hind wings strongly anastomosing. Palpi porrect, uniformly scaled, projecting about the length of the head in front; maxillary palpi distinct, slender, dilated with scales at the end. Antennæ short, simple, thickened toward base and scaled above. Legs moderate, the hind tibiæ with four spurs. Fore wing with a long branch from the basal loop of vein 1; 1c absent; median 4-branched, veins 2 to 4 equally spaced, 5 very close to 4; cell weakly closed; a small accessory cell; vein 6 from the middle of the accessory cell; 7 and 8 stalked from the end of the accessory cell, 9 absent; 10 from the end of the accessory cell; 11 from the cell, free; 12 from base. Hind wings with two internal veins, 1c absent, scarcely with even a rudiment toward base; median vein as on fore wings; cell closed, the upper part obliquely retracted; veins 6 and 7 stalked, the upper vein of the cell weak; 8 strong, free from base, broadly anastomosing with 7 beyond the cell; ♂ frenulum a long spine.

T. gallærandialis, sp. nov.

Head ashen, palpi, front and basal antennal tuft purple brown; thorax purple brown, tips of patagia and end of thorax pale sordid ashen. Abdominal segments broadly ringed with black at base. Fore wing whitish, sordid tinted except in the disk; a large subbasal quadrate purplish black patch resting on the costa and continued not quite to inner margin, joined to the narrow dark costal edge; a rounded elliptical patch in the disk, oblique, lying between vein 1 and the subcostal and centered nearly by the origin of vein 2, reddish purple, relieved by a patch of orange scales toward costa and toward inner margin and a little tuft of raised metallic scales toward base. A small cluster of purple scales on accessory cell. Subterminal line finely crenulate, gently incurved on the lower third, linear, purple brown, but preceded by a broad purple brown shaded band which is pulverulent and obscure on the upper half, distinct below, diffuse inwardly. Three purple brown patches on the margin, the costal one faint and powdery, those at centre of margin and at anal angle distinct. A terminal row of blackish dots, often obsolete. Fringe pale, interlined with dark opposite the dark spots and black tipped. Hind wing sordid white, a terminal shaded black band, broad at apex; sometimes an outer wavy diffuse band. In one ♀ nearly the whole wing is suffused with brown. Expanse, 27 to 29 mm.

Six specimens, Key West, Florida (E. A. Schwarz), Palm Beach, Florida. U. S. Nat. Museum, type no. 5418.

Prof. Fernald examined a specimen of this interesting moth and said: "Not a micro.; I do not know where it should be placed."

It certainly contradicts the characters of the Pyralidæ, where it would naturally be placed, and falls in the Thyrididæ by Hampson's tables. There is, however, no Thyrid with such a highly specialized venation as this moth, which, therefore, seems an offshoot of the Pyralidæ.

The larvæ are gall makers in the old stems of *Randia aculeata*. The gall is a thick swelling in the hard wood about twice the thickness of the normal stem; fusiform with normal bark and no visible opening. There is, however, a tiny apical opening from which the larva ejects the frass and at once closes with silk. The interior of the gall is a tube of the diameter of the larva, about 25 mm. long, moist, without frass, only a little pulverized pithy wood in the bottom. The galls occur in pairs, adjoining. At maturing the larva eats a hole large enough for the exit of the moth and closes it with web. Pupation within, the pupa practically filling the cavity. Old galls remain on the tree and do not kill the branch.

Head very full and rounded, clypeus not reaching above the middle of the front, not depressed nor elevated; head not bilobed, all the sutures level with the surface. Higher than wide; antennæ moderate; ocelli small; dark brown, the sutures paler; width about 1.5 mm. Body cylindrical, nearly uniform, segments somewhat folded and creased, subventral fold distinct but not prominent. Uniformly light brown, a little darker at the ends. Tubercles corneous, shining brown, mostly without setæ, though there are a few near the head and subventrally. Tubercles small, irregularly shaped; iv and v united, vi present, vii without much cornification. On thorax iv + v normal, ia and ib approximate, iia + iib. Spiracles flesh colored with dark rims. Feet normal, short; abdominal ones with complete circle of crochets around the flat planta and small central dark spot. Skin finely granular, rather opaque. Tubercles shining, iv and v somewhat remote, iv the higher, but both on a common shield. Actual hair tubercles darker than the tubercle shields. Leg shields scarcely cornified. The chin gland consists of two large, remote papillæ, wider apart than the thoracic feet.

The larvæ must feed mainly upon the sap, as they consume hardly more of the interior of the gall than will suffice to give space for their bodies.

AN APPARENTLY NEW TORTRICID FROM FLORIDA.

By Harrison G. Dyar.

Lophoderus amatana, sp. nov.

Dark cinnamon brown, the thorax tufted with purple brown posteriorly. Fore wings with three oblique shaded purplish brown bands, the first covering the basal